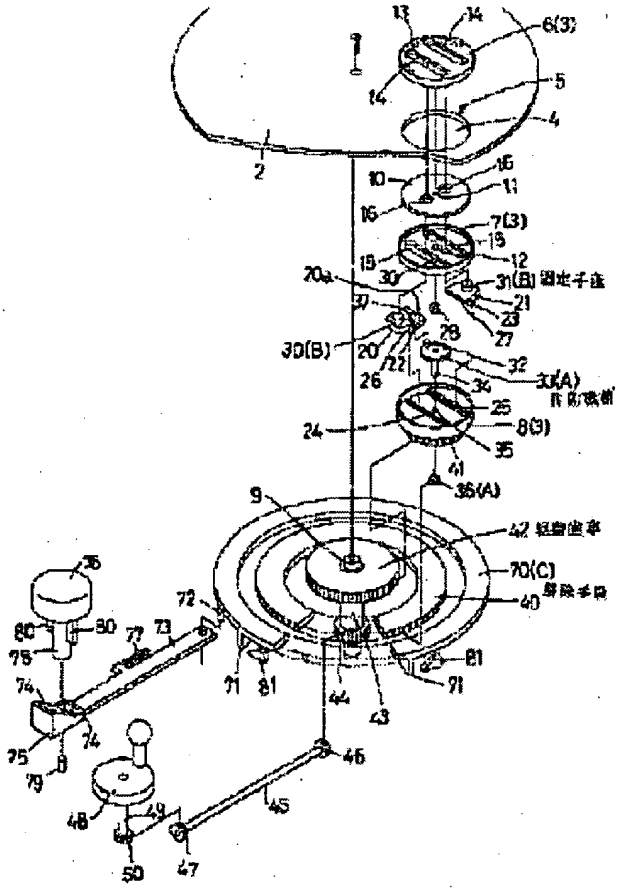
OPERATION UNIT FOR DOLL

Patent number:	JP10258186
Publication date:	1998-09-29
Inventor:	KATAOKA ISAMU
Applicant:	TAKARA CO LTD
Classification:	
- international:	A63H13/02; A63H31/08
- european:	
Application number:	JP19970084477 19970318
Priority number(s):	JP19970084477 19970318

Abstract of **JP10258186**

PROBLEM TO BE SOLVED: To provide the operation unit for a doll for making the doll not provided with an operation mechanism such as a dress-up doll or the like perform a walking operation. SOLUTION: A rotating body 3 is rotatably arranged at the eccentric position of a disk 2 rotatably arranged on the upper surface of a base 1 and a stop part 5 for stopping the rotation of the rotating body 3 at half rotation is formed at the disk 2. Then, the rotating body 3 is rotated linked with a driving gear 42 rotated linked to the rotating operation of a handle 48 and is revolved integrally with the driving gear 42 when it is engaged with the stop part 5 and the rotation is stopped. Two sliders 20 and 21 arranged slidably in mutually opposing directions and provided with a fixing means B for fixing the feet of the doll on an upper surface and the operation mechanism A for moving the two sliders 20 and 21 back and forth are arranged inside the rotating body 3 and the operation mechanism A is operated linked with the revolution of the rotating body 3.



CLAIMS

[Claim(s)]
[Claim 1] Equipment of the doll characterized by having the following requirements of operation.
(b) While a disk is arranged pivotable on the top face of a pedestal and body of revolution is arranged pivotable in the location as for which this disk carried out eccentricity The forming [the halt section which makes the above-mentioned disk suspend the revolution of this body of revolution by half-revolution] (b) above-mentioned body of revolution is coordinated and rotated to the driver arranged inside the above-mentioned pedestal. The revolving [if it engages with the above-mentioned halt section and a revolution stops / by the driver and one]-around the sun (Ha) above-mentioned driver is interlocked with revolution actuation of the handle prepared in the above-mentioned pedestal, and is rotated. Two sliders arranged possible [sliding of the direction which disagrees with the interior of the changing / coordinate with the forward counterrotation of the above-mentioned handle, and / the hand of cut / (2) above-mentioned body of revolution mutually], this -- a fixed means to fix the guide peg of a doll is formed in the top face of the operating [the operation system which makes two sliders reciprocate is arranged, and this operation system is interlocked with revolution of body of revolution, and] (e) above-mentioned slider -- [claim 2] Equipment of the doll according to claim 1 which formed from the outside a discharge means to cancel a halt of said body of revolution by said halt section in said pedestal operational of operation.

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention relates to the equipment of the doll which operates the doll which is not equipped with the device of operation of operation, and the equipment of the doll operated so that it may move forward moving a guide peg by turns in detail of operation.
[0002]
[Description of the Prior Art] From the play which dresses with the dress of a doll again conventionally, or knits hair of hair, playing house which carries out a doll as human being's simulation, and ** also plays as a mother or a salesclerk using house toys, such as a chitin and a hamburger shop, and various stage properties is accepted in many children, and various playthings are offered corresponding to it.
[0003]
[Problem(s) to be Solved by the Invention] However, the above-mentioned doll had to be compulsorily moved with the hand or the guide peg to operate not the doll that operates to the last but the doll. Moreover, in order to operate a doll himself, the driving gear of the guide peg which made the motor, the spiral spring, etc. the driving source has be arrange inside of the body, the guide peg had to be moved, or the wheel prepared in the flesh side of a guide peg had to be made to drive through two or more gearings and links, the configuration of a doll was able to become large, the balance with other playthings could not be took, and a doll was not able to be operated on the extension wire of playing

house.
[0004] This invention cancels the above-mentioned trouble and makes it the technical problem to offer the equipment of the doll which carries out walk actuation of the doll without devices of operation, such as a dress-up doll, of operation.
[0005]
[Means for Solving the Problem] In order to solve said technical problem, the equipment of the doll concerning this invention of operation is characterized by having the following requirements.
(b) While a disk is arranged pivotable on the top face of a pedestal and body of revolution is arranged pivotable in the location as for which this disk carried out eccentricity The forming [the halt section which makes the above-mentioned disk suspend the revolution of this body of revolution by half-revolution] (b) above-mentioned body of revolution is coordinated and rotated to the driver arranged inside the above-mentioned pedestal. The revolving [if it engages with the above-mentioned halt section and a revolution stops / by the driver and one]-around the sun (Ha) above-mentioned driver is interlocked with revolution actuation of the handle prepared in the above-mentioned pedestal, and is rotated. Two sliders arranged possible [sliding of the direction which disagrees with the interior of the changing / coordinate with the forward counterrotation of the above-mentioned handle, and / the hand of cut / (2) above-mentioned body of revolution mutually], this -- it is that the operation system which makes two sliders reciprocate is arranged, and a fixed means to fix the guide peg of a doll is formed in the top face of the operating [this operation system is interlocked with revolution of body of revolution, and] (e) above-mentioned slider -- A discharge means to cancel a halt of the above-mentioned body of revolution by the above-mentioned halt section may be formed in the above-mentioned pedestal operational from the outside.
[0006]
[Embodiment of the Invention] Drawing 1 shows the equipment of the doll concerning this invention of operation. The equipment of this doll of operation As for (calling it equipment of operation hereafter), a disk 2 is arranged pivotable on the top face of a pedestal 1. By rotating the handle 48 which the circular body of revolution 3 has been arranged in the location as for which this disk 2 carried out eccentricity, and has been arranged at control unit 1a formed in the anterior part of a pedestal 1 by projecting, it is constituted so that body of revolution 3 or a disk 2 can be rotated.
[0007] A disk 2 is the almost same magnitude as the top face of a pedestal 1, as shown in drawing 2 and drawing 3 , it was supported to revolve by the revolving shaft 9 prepared in the pedestal 1 pivotable, the circular opening 4 was formed in the location which carried out eccentricity, and body of revolution 3 has fitted loosely into this opening 4. And the stopper 5 which is the halt section which stops the revolution of the above-mentioned body of revolution 3 projects in the top face of the disk 2 of the outside of opening 4 up, and is formed in it.
[0008] Body of revolution 3 consists of up material 6, pars intermedia material 7, and lower material 8, and is connected with one with the screw which is not illustrated. The circular shield 10 is arranged in the space which a member 6 and the pars intermedia material 7 besides form, and this shield 10 is supported to revolve pivotable by the pivot 12 by which the central hole 11 was formed in the pars intermedia material 7. And while the protruding edge 13 of a semicircle arc is formed inside the peripheral wall of the up

material 6, respectively two slots 14 and 15 are parallel, it is formed in the up material 6 and the pars intermedia material 7, and two circular openings 16 are formed in the location corresponding to the two above-mentioned slots 14 and 15 at the shield 10.
[0009] The operation system A which makes two sliders 20 and 21 and these two sliders 20 and 21 reciprocate is arranged in the space which the pars intermedia material 7 and the lower material 8 form. Sliders 20 and 21 are formed so that the guide pieces 22 and 23 formed in the pars basilaris ossis occipitalis by projecting may be guided to the guide slots 24 and 25 formed in the lower material 8, respectively and may slide in parallel with the slot 15 of the pars intermedia material 7. Gears 26 and 27 are formed in the field where sliders 20 and 21 counter mutually, and these gears 26 and 27 gear on the medium gear 28, respectively, and they are formed so that it may move in the direction which conflicts through the medium gear 28, respectively.
[0010] In addition, the medium gear 28 is supported to revolve pivotable by the shaft 30 which projected on the base of the pars intermedia material 7 while it appears on overhang section 20a of a slider 20. And the circular magnets 30 and 31 which are fixed means B to fix the guide peg of a doll are attached in the top face of sliders 20 and 21, and the upper bed of these magnets 30 and 31 is formed so that the slot 15 of the pars intermedia material 7 and the opening 16 of a shield 10 may be penetrated and it may expose from the slot 14 of a projection and the up material 6 up.
[0011] The operation system A which makes sliders 20 and 21 reciprocate inside the lower material 8 furthermore is arranged. This operation system A consists of gearings 36 fixed at the head of the cam 33 which formed the engagement projected part 32 in the location which carried out eccentricity, and the shaft 34 which penetrated the hole 35 of the core of the lower material 8, and projected caudad. This gearing 36 meshes with the annular fixed gear 40, and a slider 20 is guided to the guide slot 24, and reciprocates, and if the engagement projected part 32 engages with the concave 37 formed in the rectangular direction to the guide piece 22 of the base of a slider 20, a gearing 36 rotates and a cam 33 rotates, the slider 21 is formed so that it may be guided to a slider 20 and hard flow through an intermediate gear 28 in the guide slot 25 and may reciprocate.
[0012] The 2nd driver 41 was fixed to the pars basilaris ossis occipitalis of the lower material 8, and this 2nd driver 41 always meshes with the 1st driver 42 supported to revolve by the pedestal 1 pivotable. The gearing 44 of the soffit of a revolving shaft 43 meshes with the gearing 46 of the end of a connecting shaft 45, and if the gearing 47 of the other end of a connecting shaft 45 meshes with the gearing 50 of the soffit of the revolving shaft 49 of a handle 48 and rotates a handle 48, this 1st driver 42 is constituted so that the 1st driver 42 may rotate through gearings 50, 47, 46, and 44. It can interlock and this 1st driver 42 can be reversed, if counterrotation of the handle 48 is carried out.
[0013] According to the equipment of the above-mentioned configuration of operation, if a handle 48 is rotated, the 1st driver 42 will rotate through gearings 50, 47, 46, and 44. Since the 2nd driver 41 meshes to the 1st driver 42, the body of revolution (the lower material 8, the pars intermedia material 7, up material 6) 3 to which the 2nd driver is being fixed rotates within the opening 4 of a pedestal 1. If the edge of the protruding edge 13 formed in the up material 6 contacts a stopper 5, the revolution of body of revolution 3 will stop. Although it cannot rotate, since the 1st driver 42 is rotating, revolution is begun by the 1st driver 42 and one, the body of revolution 3 of a driver 41 and one begins revolution, without rotating, and, as for body of revolution 3, a disk 2 also begins a

revolution, as for the 2nd driver 41.
[0014] At this time, since the gearing 36 always meshes with a fixed gear 40, while a gearing 36 rotates, he goes around a fixed gear 40 around. Since a gearing 36 rotates a cam 33 through a shaft 34, the engagement projected part 32 formed in the top face of a cam 33 performs the circular motion. Since this engagement projected part 32 is engaging with the concave 37 of a slider 20, a slider 20 is made to reciprocate along the engagement slot 24. Since the medium gear 28 geared on the gear 26 formed in this slider 20 and the gear 27 of a slider 21 has geared in the opposite hand of the medium gear 28, a slider 21 reciprocates to a slider 20 and hard flow along the guide slot 25. Magnets 30 and 31 are attached in the top face of sliders 20 and 21, and these magnets 30 and 31 penetrate the slot 15 of the pars intermedia material 7, and the opening 16 of a shield 10, and expose them from the slot 14 of the up material 6, and it reciprocates in the direction which conflicts mutually along with a slot 14.
[0015] If a handle is turned as mentioned above and body of revolution will define the sense in the fixed direction, since the circumference is begun, a pedestal top, making the magnet inside body of revolution reciprocate The guide peg of Doll a is made to wear the shoes 55 and 56 which attached the magnet in the rear face, as shown in drawing 4 (a). If make the shoes 55 of a left leg stick to a magnet 30, the shoes 56 of a right leg are made to stick to a magnet 31 and revolution actuation of the handle 48 is carried out, Doll a can take out a guide peg on either side ahead by turns, and can make it go around on a pedestal 1 as ** is also walked.
[0016] Here, if a handle 48 is reversed, drivers 42 and 41 will be reversed and body of revolution 3 will be reversed. It rotates in the direction in which the edge of 1 of a protruding edge 13 separates from a stopper 5, and body of revolution 3 is half-rotated until the edge of the opposite hand of a protruding edge 13 contacts a stopper 5. If the edge of a protruding edge 13 contacts a stopper 5, the revolution of body of revolution 3 will stop and body of revolution 3 will begin the circumference simultaneously. Since the gearing 36 and cam 33 which geared with the fixed gear 40 rotate as it mentioned above, when body of revolution 3 began the circumference, and sliders 20 and 21 begin a reciprocating motion, Doll a stops, and after changing the sense, a walk is started again (refer to drawing 4 (b)).
[0017] Thus, even if it is a doll without the operation system which operates a guide peg, it can be made to take out and walk with a guide peg near at hand alternately as ** also has the operation system. And since a doll will change the sense 180 degrees and will begin to walk along it to an opposite direction if a handle 48 is reversed, a complicated motion can be carried out to a doll by easy actuation, and the width of face of play can be expanded.
[0018] In addition, as shown in drawing 5 (a), the cap 61 with which two parallel fitting slots (fixed means) 60 and 60 were formed in the top face may be put from body of revolution 3. What is necessary is to make the guide peg of Doll a wear ice skates 62, and just to insert the blade 63 of these ice skates 62 in the fitting slot 60 of cap 61, as shown in drawing 5 (b) when this cap 61 is put on body of revolution 3. Doll a can also make ** go around on a pedestal 1 like a skater by carrying out revolution actuation of the handle 48 by this. Since it half-rotates, body of revolution 3 can change the sense of the body of Doll a, and hard flow can be made to go it around, if a handle 48 is reversed.
[0019] Next, a discharge means C to make a halt of the body of revolution 3 by the halt

section cancel is explained.
[0020] As shown in drawing 2 , this discharge means C is arranged possible [vertical movement] under the outside of a fixed gear 40, and the gearing 36 of an operation system A, and consists of rings 70 of which body of revolution 3 is pushed up up, and engagement to a stopper 5 and a protruding edge 13 is canceled.
[0021] While being able to move up and down, it is prepared rotatable, four toeboards 71 are projected and formed in the underside of a ring 70 at equal intervals, one engagement shaft 72 projects caudad and the ring 70 is formed while the die length of a toeboard 71 is set up so that the top face of a ring 70 may become lower than a fixed gear 40. The end of a link 73 coordinates with this engagement shaft 72, the actuation section 75 which has the inclined plane 74 which falls a front toward a head in the other end of this link 73 is formed, and this actuation section 75 is located under the push button 76 arranged at control unit 1a. In addition, by energizing a link 73 back by the spring 77, the above-mentioned ring 70 is energized so that a RRC may always be carried out.
[0022] The upper part pushes a push button 76 from the top face of control unit 1a. Up operational A projection, While fitting loosely into the support shaft 79 with which the shank 78 in the air was formed in the pedestal 1 possible [vertical movement], the engagement piece 80 which engages with the inclined plane 74 of the above-mentioned actuation section 75 is projected and formed in the left right-hand side wall of a shank 78. When a push button 76 is depressed and operated, a link 73 resists a spring 77 and it moves to the front, and it is formed so that the RLC of the ring 70 may be carried out. and it has the path slant face which falls a front near the toeboard 71 of a ring 70 -- since it runs aground and the section 81 is formed in the pedestal -- the toeboard 71 of a ring 70 -- this -- it can run aground, it can run aground in the section 81, and a ring 70 can be raised.
[0023] If according to the discharge means of the above-mentioned configuration a push button 76 is depressed and operated and a link 73 is moved to the front as shown in drawing 6 , it will coordinate with a link 73, the engagement shaft 72 of a ring 70 will be lengthened to the front, and a ring 70 will carry out a RLC as a result. Since the toeboard 71 would be formed in the pedestal 1, will run aground and will run aground in the section 81 if a ring 70 carries out a RLC, a ring 70 is pushed up. Since the gearing 36 and body of revolution 3 of an operation system A are located above a ring 70, while pushing up a gearing 36 and removing engagement with a fixed gear 40, the protruding edge 13 of the up material 6 pushes up body of revolution 3 up to the location which does not engage with the stopper 5 on a disk 2. A continuation revolution can be carried out as a revolution can be continued without body of revolution 3 being stopped by the stopper 5 if a handle 48 is rotated where a push button 76 is depressed, since gearings' 41 and 42 thickness was set up so that engagement of the 1st driver 42 and the 2nd driver 41 might not separate in the condition of the toeboard 71 having run aground and having run aground in the section 81, either and the doll is carrying out the spin also of the ** in the ice rink.
[0024]
[Effect of the Invention] Even if it is the doll which does not have an operation system only by rotating a handle, it can be made according to invention of claim 1, to walk as the guide peg was moved by turns and ** is also equipped with the operation system of a guide peg. And the sense can be changed only by carrying out counterrotation of the

handle, hard flow can be walked again, and doll play can be made still more pleasant. [0025] If a walk will be stopped, spin will be started, if push actuation of the push button is carried out according to invention of claim 2, turning a handle, and push actuation of a push button is stopped, spin can be stopped, a walk can be made to start again, complicated actuation is assembled by easy actuation, and the width of face of play can be expanded further.

TECHNICAL FIELD

[Field of the Invention] This invention relates to the equipment of the doll which operates the doll which is not equipped with the device of operation of operation, and the equipment of the doll operated so that it may move forward moving a guide peg by turns in detail of operation.

PRIOR ART

[Description of the Prior Art] From the play which dresses with the dress of a doll again conventionally, or knits hair of hair, playing house which carries out a doll as human being's simulation, and ** also plays as a mother or a salesclerk using house toys, such as a chitin and a hamburger shop, and various stage properties is accepted in many children, and various playthings are offered corresponding to it.

EFFECT OF THE INVENTION

[Effect of the Invention] Even if it is the doll which does not have an operation system only by rotating a handle, it can be made according to invention of claim 1, to walk as the guide peg was moved by turns and ** is also equipped with the operation system of a guide peg. And the sense can be changed only by carrying out counterrotation of the handle, hard flow can be walked again, and doll play can be made still more pleasant. [0025] If a walk will be stopped, spin will be started, if push actuation of the push button is carried out according to invention of claim 2, turning a handle, and push actuation of a push button is stopped, spin can be stopped, a walk can be made to start again, complicated actuation is assembled by easy actuation, and the width of face of play can be expanded further.

TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention] However, the above-mentioned doll had to be compulsorily moved with the hand or the guide peg to operate not the doll that operates to the last but the doll. Moreover, in order to operate a doll himself, the driving gear of the guide peg which made the motor, the spiral spring, etc. the driving source has be arrange inside of the body, the guide peg had to be moved, or the wheel prepared in the flesh side of a guide peg had to be made to drive through two or more gearings and links, the configuration of a doll was able to become large, the balance with other playthings could not be took, and a doll was not able to be operated on the extension wire of playing house.

[0004] This invention cancels the above-mentioned trouble and makes it the technical problem to offer the equipment of the doll which carries out walk actuation of the doll without devices of operation, such as a dress-up doll, of operation.
[0005]

MEANS

[Means for Solving the Problem] In order to solve said technical problem, the equipment of the doll concerning this invention of operation is characterized by having the following requirements.
(b) While a disk is arranged pivotable on the top face of a pedestal and body of revolution is arranged pivotable in the location as for which this disk carried out eccentricity The forming [the halt section which makes the above-mentioned disk suspend the revolution of this body of revolution by half-revolution] (b) above-mentioned body of revolution is coordinated and rotated to the driver arranged inside the above-mentioned pedestal. The revolving [if it engages with the above-mentioned halt section and a revolution stops / by the driver and one]-around the sun (Ha) above-mentioned driver is interlocked with revolution actuation of the handle prepared in the above-mentioned pedestal, and is rotated. Two sliders arranged possible [sliding of the direction which disagrees with the interior of the changing / coordinate with the forward counterrotation of the above-mentioned handle, and / the hand of cut / (2) above-mentioned body of revolution mutually], this -- it is that the operation system which makes two sliders reciprocate is arranged, and a fixed means to fix the guide peg of a doll is formed in the top face of the operating [this operation system is interlocked with revolution of body of revolution, and] (e) above-mentioned slider -- A discharge means to cancel a halt of the above-mentioned body of revolution by the above-mentioned halt section may be formed in the above-mentioned pedestal operational from the outside.
[0006]
[Embodiment of the Invention] Drawing 1 shows the equipment of the doll concerning this invention of operation. The equipment of this doll of operation As for (calling it equipment of operation hereafter), a disk 2 is arranged pivotable on the top face of a pedestal 1. By rotating the handle 48 which the circular body of revolution 3 has been arranged in the location as for which this disk 2 carried out eccentricity, and has been arranged at control unit 1a formed in the anterior part of a pedestal 1 by projecting, it is constituted so that body of revolution 3 or a disk 2 can be rotated.
[0007] A disk 2 is the almost same magnitude as the top face of a pedestal 1, as shown in drawing 2 and drawing 3 , it was supported to revolve by the revolving shaft 9 prepared in the pedestal 1 pivotable, the circular opening 4 was formed in the location which carried out eccentricity, and body of revolution 3 has fitted loosely into this opening 4. And the stopper 5 which is the halt section which stops the revolution of the above-mentioned body of revolution 3 projects in the top face of the disk 2 of the outside of opening 4 up, and is formed in it.
[0008] Body of revolution 3 consists of up material 6, pars intermedia material 7, and lower material 8, and is connected with one with the screw which is not illustrated. The circular shield 10 is arranged in the space which a member 6 and the pars intermedia material 7 besides form, and this shield 10 is supported to revolve pivotable by the pivot

12 by which the central hole 11 was formed in the pars intermedia material 7. And while the protruding edge 13 of a semicircle arc is formed inside the peripheral wall of the up material 6, respectively two slots 14 and 15 are parallel, it is formed in the up material 6 and the pars intermedia material 7, and two circular openings 16 are formed in the location corresponding to the two above-mentioned slots 14 and 15 at the shield 10.
[0009] The operation system A which makes two sliders 20 and 21 and these two sliders 20 and 21 reciprocate is arranged in the space which the pars intermedia material 7 and the lower material 8 form. Sliders 20 and 21 are formed so that the guide pieces 22 and 23 formed in the pars basilaris ossis occipitalis by projecting may be guided to the guide slots 24 and 25 formed in the lower material 8, respectively and may slide in parallel with the slot 15 of the pars intermedia material 7. Gears 26 and 27 are formed in the field where sliders 20 and 21 counter mutually, and these gears 26 and 27 gear on the medium gear 28, respectively, and they are formed so that it may move in the direction which conflicts through the medium gear 28, respectively.
[0010] In addition, the medium gear 28 is supported to revolve pivotable by the shaft 30 which projected on the base of the pars intermedia material 7 while it appears on overhang section 20a of a slider 20. And the circular magnets 30 and 31 which are fixed means B to fix the guide peg of a doll are attached in the top face of sliders 20 and 21, and the upper bed of these magnets 30 and 31 is formed so that the slot 15 of the pars intermedia material 7 and the opening 16 of a shield 10 may be penetrated and it may expose from the slot 14 of a projection and the up material 6 up.
[0011] The operation system A which makes sliders 20 and 21 reciprocate inside the lower material 8 furthermore is arranged. This operation system A consists of gearings 36 fixed at the head of the cam 33 which formed the engagement projected part 32 in the location which carried out eccentricity, and the shaft 34 which penetrated the hole 35 of the core of the lower material 8, and projected caudad. This gearing 36 meshes with the annular fixed gear 40, and a slider 20 is guided to the guide slot 24, and reciprocates, and if the engagement projected part 32 engages with the concave 37 formed in the rectangular direction to the guide piece 22 of the base of a slider 20, a gearing 36 rotates and a cam 33 rotates, the slider 21 is formed so that it may be guided to a slider 20 and hard flow through an intermediate gear 28 in the guide slot 25 and may reciprocate.
[0012] The 2nd driver 41 was fixed to the pars basilaris ossis occipitalis of the lower material 8, and this 2nd driver 41 always meshes with the 1st driver 42 supported to revolve by the pedestal 1 pivotable. The gearing 44 of the soffit of a revolving shaft 43 meshes with the gearing 46 of the end of a connecting shaft 45, and if the gearing 47 of the other end of a connecting shaft 45 meshes with the gearing 50 of the soffit of the revolving shaft 49 of a handle 48 and rotates a handle 48, this 1st driver 42 is constituted so that the 1st driver 42 may rotate through gearings 50, 47, 46, and 44. It can interlock and this 1st driver 42 can be reversed, if counterrotation of the handle 48 is carried out.
[0013] According to the equipment of the above-mentioned configuration of operation, if a handle 48 is rotated, the 1st driver 42 will rotate through gearings 50, 47, 46, and 44. Since the 2nd driver 41 meshes to the 1st driver 42, the body of revolution (the lower material 8, the pars intermedia material 7, up material 6) 3 to which the 2nd driver is being fixed rotates within the opening 4 of a pedestal 1. If the edge of the protruding edge 13 formed in the up material 6 contacts a stopper 5, the revolution of body of revolution 3 will stop. Although it cannot rotate, since the 1st driver 42 is rotating, revolution is begun

by the 1st driver 42 and one, the body of revolution 3 of a driver 41 and one begins revolution, without rotating, and, as for body of revolution 3, a disk 2 also begins a revolution, as for the 2nd driver 41.

[0014] At this time, since the gearing 36 always meshes with a fixed gear 40, while a gearing 36 rotates, he goes around a fixed gear 40 around. Since a gearing 36 rotates a cam 33 through a shaft 34, the engagement projected part 32 formed in the top face of a cam 33 performs the circular motion. Since this engagement projected part 32 is engaging with the concave 37 of a slider 20, a slider 20 is made to reciprocate along the engagement slot 24. Since the medium gear 28 geared on the gear 26 formed in this slider 20 and the gear 27 of a slider 21 has geared in the opposite hand of the medium gear 28, a slider 21 reciprocates to a slider 20 and hard flow along the guide slot 25. Magnets 30 and 31 are attached in the top face of sliders 20 and 21, and these magnets 30 and 31 penetrate the slot 15 of the pars intermedia material 7, and the opening 16 of a shield 10, and expose them from the slot 14 of the up material 6, and it reciprocates in the direction which conflicts mutually along with a slot 14.

[0015] If a handle is turned as mentioned above and body of revolution will define the sense in the fixed direction, since the circumference is begun, a pedestal top, making the magnet inside body of revolution reciprocate The guide peg of Doll a is made to wear the shoes 55 and 56 which attached the magnet in the rear face, as shown in drawing 4 (a). If make the shoes 55 of a left leg stick to a magnet 30, the shoes 56 of a right leg are made to stick to a magnet 31 and revolution actuation of the handle 48 is carried out, Doll a can take out a guide peg on either side ahead by turns, and can make it go around on a pedestal 1 as ** is also walked.

[0016] Here, if a handle 48 is reversed, drivers 42 and 41 will be reversed and body of revolution 3 will be reversed. It rotates in the direction in which the edge of 1 of a protruding edge 13 separates from a stopper 5, and body of revolution 3 is half-rotated until the edge of the opposite hand of a protruding edge 13 contacts a stopper 5. If the edge of a protruding edge 13 contacts a stopper 5, the revolution of body of revolution 3 will stop and body of revolution 3 will begin the circumference simultaneously. Since the gearing 36 and cam 33 which geared with the fixed gear 40 rotate as it mentioned above, when body of revolution 3 began the circumference, and sliders 20 and 21 begin a reciprocating motion, Doll a stops, and after changing the sense, a walk is started again (refer to drawing 4 (b)).

[0017] Thus, even if it is a doll without the operation system which operates a guide peg, it can be made to take out and walk with a guide peg near at hand alternately as ** also has the operation system. And since a doll will change the sense 180 degrees and will begin to walk along it to an opposite direction if a handle 48 is reversed, a complicated motion can be carried out to a doll by easy actuation, and the width of face of play can be expanded.

[0018] In addition, as shown in drawing 5 (a), they are two parallel fitting slots to a top face.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] The perspective view of the equipment of the doll concerning this invention

of operation
[Drawing 2] The decomposition perspective view showing the configuration of the above-mentioned equipment of operation
[Drawing 3] The important section sectional view of body of revolution
[Drawing 4] (a) and (b) are the perspective view showing the busy condition of the above-mentioned equipment of operation.
[Drawing 5] (a) and (b) are other busy condition **** perspective views of the above-mentioned equipment of operation.
[Drawing 6] The important section side elevation explaining the operating state of a discharge means
[Description of Notations]
1 Pedestal
2 Disk
3 Body of Revolution
5 Stopper (Halt Section)
20 21 Slider
42 Driver
48 Handle
A Operation system
Doll
B Fixed means
C Discharge means

CORRECTION OR AMENDMENT

[Kind of official gazette] Printing of amendment by the convention of 2 of Article 17 of Patent Law
[Category partition] The 2nd partition of the 1st category
[Publication date] December 12, Heisei 12 (2000. 12.12)

[Publication No.] JP,10-258186,A
[Date of Publication] September 29, Heisei 10 (1998. 9.29)
[Annual volume number] Open patent official report 10-2582
[Application number] Japanese Patent Application No. 9-84477
[The 7th edition of International Patent Classification]
A63H 13/02
31/08
[FI]
A63H 13/02 G
31/08 A

[Procedure amendment]
[Filing Date] April 17, Heisei 12 (2000. 4.17)
[Procedure amendment 1]
[Document to be Amended] Description
[Item(s) to be Amended] Claim
[Method of Amendment] Modification

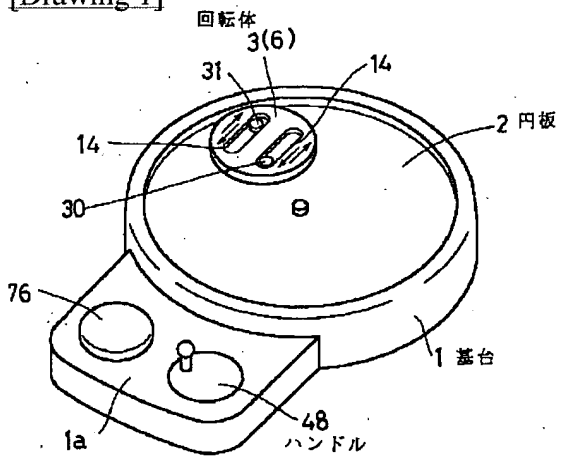
[Proposed Amendment]
[Claim(s)]
[Claim 1] Equipment of the doll characterized by having the following requirements of operation.
(b) While a disk is arranged pivotable on the top face of a pedestal and body of revolution is arranged pivotable in the location as for which this disk carried out eccentricity, the halt section which makes the above-mentioned disk suspend the revolution of this body of revolution by half-revolution is formed.
(b) The above-mentioned body of revolution is revolving around the sun by the driver and one, if it coordinates and rotates to the driver arranged inside the above-mentioned pedestal, it engages with the above-mentioned halt section and a revolution stops.
(c) two sliders arranged possible [sliding of the direction which disagrees with the interior of the above-mentioned body of revolution mutually] -- this -- the operation system which makes two sliders reciprocate being arranged, and this operation system being interlocked with revolution of body of revolution, and operating
(d) A fixed means to fix a doll is formed in the top face of the above-mentioned slider.
[Claim 2] Equipment of the doll according to claim 1 which formed from the outside a discharge means to cancel a halt of said body of revolution by said halt section in said pedestal operational of operation.
[Procedure amendment 2]
[Document to be Amended] Description
[Item(s) to be Amended] 0005
[Method of Amendment] Modification
[Proposed Amendment]
[0005]
[Means for Solving the Problem] In order to solve said technical problem, the equipment of the doll concerning this invention of operation is characterized by having the following requirements.
(b) While a disk is arranged pivotable on the top face of a pedestal and body of revolution is arranged pivotable in the location as for which this disk carried out eccentricity, the halt section which makes the above-mentioned disk suspend the revolution of this body of revolution by half-revolution is formed.
(b) The above-mentioned body of revolution is revolving around the sun by the driver and one, if it coordinates and rotates to the driver arranged inside the above-mentioned pedestal, it engages with the above-mentioned halt section and a revolution stops.
(c) two sliders arranged possible [sliding of the direction which disagrees with the interior of the above-mentioned body of revolution mutually] -- this -- the operation system which makes two sliders reciprocate being arranged, and this operation system being interlocked with revolution of body of revolution, and operating
(d) A fixed means to fix a doll is formed in the top face of the above-mentioned slider.
In addition, a discharge means to cancel a halt of the above-mentioned body of revolution by the above-mentioned halt section may be formed in the above-mentioned pedestal operational from the outside.

* NOTICES *

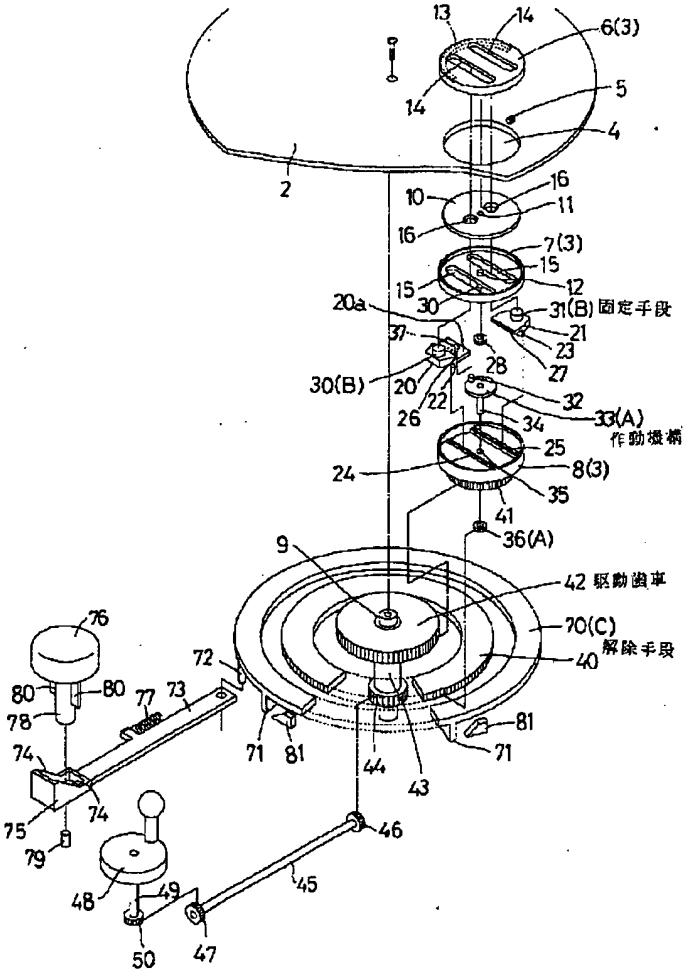
1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

DRAWINGS

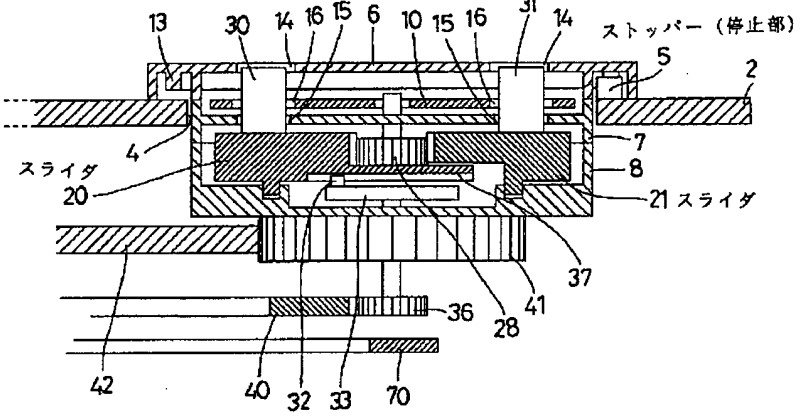
[Drawing 1]



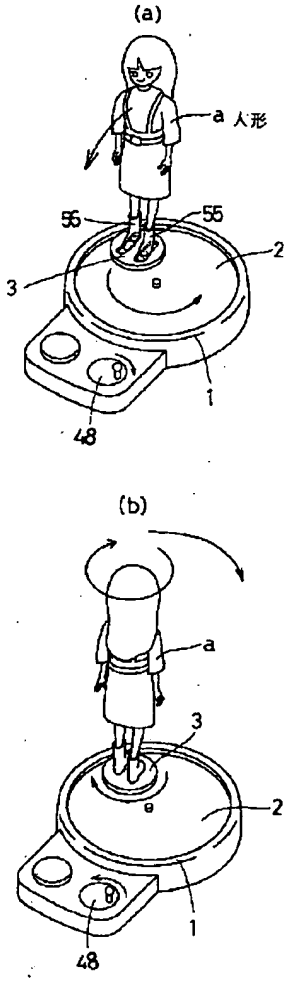
[Drawing 2]



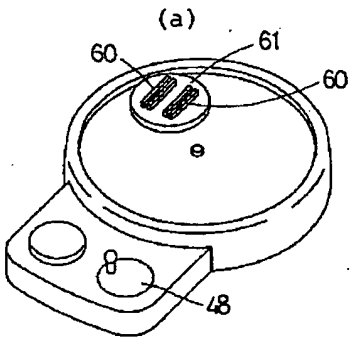
[Drawing 3]

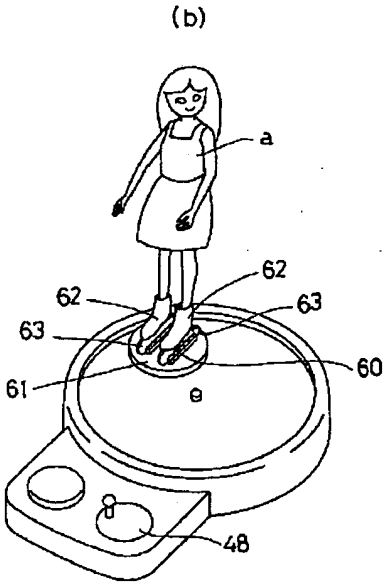


[Drawing 4]

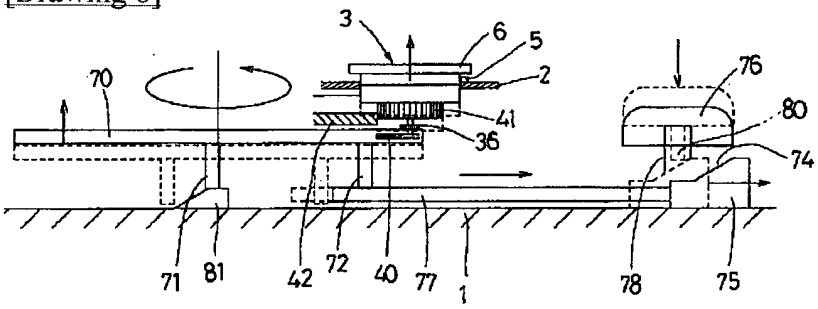


[Drawing 5]





[Drawing 6]



[Translation done.]